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10/596,112	05/31/2006	Nevenka Dimitrova	NL040163US	2183
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TRUONG, DENNIS				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/596,112

Applicant(s)

DIMITROVA ET AL.

Examiner

DENNIS TRUONG

Art Unit

2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-29 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8 and 10-29 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 31 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/02/2008 has been entered.

Response to Amendment

2. It is acknowledged that claims 1, 11, 14, 23-27 have been amended. And claims 30-32 were canceled in the previous amendment (March 27, 2008).
3. Claims 1-8 and 10-29 are pending.

Response to Arguments

4. Applicant's arguments with respect to the amended claims rejected under 35 USC 103 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5, 8, 12, 17-23, 25, 26, 27, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ikezoze et al. (US 6834308 B1)** and in view of **Lampkin et al. (US 20040220791 A1)**.

As per claim 1, Ikezoze discloses:

- **A system for integrative analysis of intrinsic**, as (col. 2 lines 51-52) “generates a media sample or analytical representation of the media content”, **and extrinsic audio-visual data**, as (col. 2 lines 53 – 55) “media sample or representation is compared to a database of the sampled media content or representations to query and ascertain information related to the sample”, **the system comprising:**
- **an intrinsic content analyzer, the intrinsic content analyzer being communicatively connected to an audio-visual source, the intrinsic content analyzer being adapted to search the audio-visual source for intrinsic data and being adapted to extract intrinsic data using an extraction algorithm**, as (col. 7 lines 62 – 63), “sampling unit 34 carries out the operation of creating a media sample of the media content played on the client media player 14”, where the media content is the audio-visual source.
- **an extrinsic content analyzer, the extrinsic content analyzer being communicatively connected to an extrinsic information source, the extrinsic content analyzer being adapted to search the extrinsic information source and being adapted to retrieve extrinsic data using a retrieval algorithm**, as (col. 8 lines 26 – 27) “media player 14 and transmit the sample to the lookup server 12...the lookup server 12 provides the information related to the media sample”.
- But Ikezoye fails to specifically disclose: **a processor configured to correlate the intrinsic data and the extrinsic data for providing a multisource data structure, wherein intrinsic analyzer, the extrinsic analyzer and the processor are included in a single device**

However, **Lampkin** teaches the above limitations as (paragraph [0552]) “the content management system links the viewer to a corresponding scene (by use of the command InterActual.SearchTime to go to the specific location within a title) within the DVD-Video... the text of the screenplay in HTML scrolls with the DVD-Video (e.g., in one of the sub windows) to give the appearance of being synchronized with the DVD-Video”, where the html of the screen play is the extrinsic data and the specific location within a title) within the DVD-Video is the intrinsic data and Fig. 7 shows the incorporation of the screen play provided in html, dvd video and the processor all being incorporated.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Lampkin** into the teaching of **Ikezoye** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing related screenplay information based on information related to a video and audio source. By providing related screenplay information the experience of watching a film is enhanced by providing more interactive options and information.

As per Claim 2, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein the retrieval of the extrinsic data is based on the extracted intrinsic data**, as (col. 8 lines 25 - 30) “media player 14 and transmit the sample to the lookup server 12...the lookup server 12 provides the information related to the media sample... content-related information is received by the user interface 38”.

As per Claim 3, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein the extraction and/or retrieval algorithm(s) is/are provided by a module**, as (col. 7 lines 62 – 63), “sampling unit 34 carries out the operation of creating a media

sample of the media content played on the client media player 14”, where the sampling unit is the module as claimed.

As per Claim 4, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein a query is provided by a user, the query being provided to the extraction algorithm and wherein the intrinsic data is extracted in accordance with the query,** as (col. 8 lines 20 – 23) “a user may issue a request for content-related information via the user-interface 38. This request is communicated to the sampling unit 34 for further processing”, where the request is claimed query.

As per Claim 5, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein a query is provided by a user, the query being provided to the retrieval algorithm and wherein the extrinsic data is retrieved in accordance with the query,** as (col. 8 lines 20 – 30) “a user may issue a request for content-related information via the user-interface 38. This request is communicated to the sampling unit 34 for further processing... transmit the sample to the lookup server 12...the lookup server 12 provides the information related to the media sample”, where the request is claimed query.

As per Claim 8, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein the extrinsic information source is connected to and may be accessed via the Internet (103),** as (col. 3 lines 23 - 24) “the lookup server is generally connected to the client media players via an Internet connection.”

As per Claim 12, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein a feature in a film is analyzed based on information included in the screenplay,** as (col. 8 lines 26 – 27) “media player 14 and transmit the sample to the

lookup server 12...the lookup server 12 provides the information related to the media sample" and furthermore (col. 4 lines 50 – 51) "media content source may also be audio CDs, DVD or other formats suitable for presentation on the media play devices" where DVD can contain a film screenplay.

As per Claim 17, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein a high- level information structure (5-9) is generated in accordance with the multi-source data structure**, as (col. 8 lines 30 – 32) "content-related information is received by the user interface 38" where the content-related information returned is high-level as claimed.

As per Claim 18, Claim 17 is incorporated and further Ikezoye discloses:

- **wherein the high- level information structure may be stored on a storage medium**, as (col. 8 lines 30 – 32) "content-related information is received by the user interface 38" where the user interface is in the client device consisting of a storage medium (col. 6 lines 30 – 35).

As per Claim 19, Claim 17 is incorporated and further Ikezoye discloses:

- **wherein an update high-level information structure is generated, the updated high-level information structure being an already existing high-level information structure which is updated in accordance with the multi-source data structure**, as (col. 8 lines 30 – 32) "content-related information is received by the user interface 38" where the user interface is in the client device consisting of a storage medium (col. 6 lines 30 – 35) where each time the content-related information is received it is an update.

As per Claim 20, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein the retrieval algorithm is a dynamic retrieval algorithm adapted to dynamically update itself by including additional functionalities in accordance with retrieved extrinsic data**, as (col. 8 lines 30 – 32) “content-related information is received by the user interface 38” where each time the content-related information is received it is displayed to the user and therefore stored as an update.

As per Claim 21, Claim 20 is incorporated and further Ikezoye discloses:

- **wherein the additional functionalities is obtained by training the retrieval algorithm on a set of features from intrinsic data using labels obtained from the extrinsic data**, (col. 9 lines 3 - 8) discloses a log unit that maintains media request such as media, type, genre or category which assist in training the lookup server by keeping track of what is requested.

As per Claim 22, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein the training is performed using at least one screenplay**, as (col. 9 lines 3 - 8) discloses a log unit that maintains media request such as media, type, genre or category which assist in training the lookup server by keeping track of what is requested. Furthermore (col. 4 lines 50 – 51) “media content source may also be audio CDs, DVD or other formats suitable for presentation on the media play devices” where DVD can contain a film screenplay.

As per Claim 23, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein an automatic ground truth identification in a film is obtained based on the multi-source data structure for use in benchmarking algorithms on audio-visual content**, as (col. 8 lines 47 – 59) “sequentially compares each reference sample in the

structure 47 to the media sample provided by the media player...The reference that has the smallest distance to any frame in the sample is considered a match” which shows the multi-source data correlated automatically which is automatic ground truth as claimed.

As per Claim 25, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein an automatic labeling in a film is obtained based on the multi-source data structure**, as (col. 8 lines 62 - 63) “This content-related information may include such information as song title, artist, and album name”.

Claims 26, 27, 28, 29 are method claims for integrative analyses of intrinsic and extrinsic audio-visual source, corresponding to the method claims 1, 17, 20 respectively, and are rejected under the same reason set forth in connection to rejections of claims 1, 17, 20 respectively above.

7. Claims 10, 11, 24, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ikezoye and Lampkin** and further in view of **Courtney** (US 5969755 A).

As per Claim 10, Claim 1 is incorporated and further Ikezoye and Lampkin fails to disclose:

- **extrinsic data is retrieved based on information extracted from audio video source, wherein the extrinsic content analyzer include knowledge about screenplay grammar**

However, **Courtney** teaches the above limitations as (col. 1 lines 36-42) “consider an on-line movie screenplay (textual data) and a digitized movie (video and audio data). If one were analyzing the screenplay and interested in searching for instances of the word "horse" in the text, many text searching algorithms could be employed to locate every instance of this symbol as desired. Such analysis is common in on-line text databases" which discloses analyzing the

screenplay and searching/retrieving the related information from the screenplay from an on-line source based on the video and audio data.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Courtney** into the teaching of **Ikezoey and Lampkin** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing related screenplay information based on information extracted from a video and audio source. By providing related screenplay information the experience of watching a film is enhanced by providing more interactive options and information.

As per Claim 11, Claim 1 is incorporated and further Ikezoey and Lampkin does not disclose:

- **wherein the identification of persons in a film is obtained by means of the screenplay.**

However, **Courtney** teaches the above limitations as (col. 1 lines 36-42) "consider an on-line movie screenplay (textual data) and a digitized movie (video and audio data). If one were analyzing the screenplay and interested in searching for instances of the word "horse" in the text, many text searching algorithms could be employed to locate every instance of this symbol as desired. Such analysis is common in on-line text databases" which discloses analyzing the screenplay and searching/retrieving the related information from the screenplay from an on-line source based on the video and audio data, where related information can a person's identification.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Courtney** into the teaching of **Ikezoey and**

Lampkin because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing related screenplay information based on information extracted from a video and audio source. By providing related screenplay information the experience of watching a film is enhanced by providing more interactive options and information.

As per Claim 24, Claim 1 is incorporated and further Ikezoye and Lampkin does not disclose:

- **wherein an automatic scene content understanding in a film is obtained based on the textual description in the screenplay and the audio-visual features from the film content.**

However, **Courtney** teaches the above limitations as (col. 1 lines 36-42) "consider an on-line movie screenplay (textual data) and a digitized movie (video and audio data). If one were analyzing the screenplay and interested in searching for instances of the word "horse" in the text, many text searching algorithms could be employed to locate every instance of this symbol as desired. Such analysis is common in on-line text databases" which discloses analyzing the screenplay and searching/retrieving the related information from the screenplay from an on-line source based on the video and audio data.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Courtney** into the teaching of **Ikezoye and Lampkin** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing related screenplay information based on information extracted from a video and audio source. By providing related screenplay information the

experience of watching a film is enhanced by providing more interactive options and information.

Claim 28 is a method claim for integrative analyses of intrinsic and extrinsic audio-visual source, corresponding to the method claim 10 and is rejected under the same reason set forth in connection to rejections of claims 10 respectively above.

8. Claims 6, 7, 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ikezoye and Lampkin** and further in view of **Witteman** (US 6243676 B1).

As per Claim 6, Claim 1 is incorporated and further Ikezoye discloses:

- wherein a feature reflected in the intrinsic and extrinsic data include textual, audio and/or visual features, as (col. 8 lines 60 - 65) discloses the related matching records return to the user include audio and or visual feature.
- But **Ikezoye and Courtney** fails to disclose **textual features**.

However, **Witteman** teaches the above limitations as (col. 4 line 34) "closed caption text feed is then separated."

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Witteman** into the teaching of **Ikezoye and Lampkin** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing additional options and description describing the content so that more relevant information can be retrieved.

As per Claim 7, Claim 1 is incorporated and further Ikezoye discloses:

- **wherein the audio\visual source is a film (101)** as (col. 2 lines 53) "media content, such as audio/video played on the media player", where a video played on the media player is a film
- **and wherein the extracted data include textual (104), audio and/or visual features (105, 106)** as (col. 8 lines 60 - 65) discloses the related matching records return to the user include audio and or visual feature.
- **But Ikezoye and Lampkin fails to disclose textual features.**

However, **Wittman** teaches the above limitations as (col. 4 line 34) "closed caption text feed is then separated."

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Wittman** into the teaching of **Ikezoye and Lampkin** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing additional options and description describing the content so that more relevant information can be retrieved.

As per Claim 13, Claim 1 is incorporated and further Ikezoye and Lampkin does not disclose:

- **wherein the correlation of the intrinsic and extrinsic data is time correlation (121), thereby providing a multisource data structure where a feature reflected in the intrinsic data is time correlated to a feature reflected in the extrinsic data.**

However **Wittman** discloses the above limitation as (FIG. 3) which discloses the linking the extracted text and related searches bases on time.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Witteman** into the teaching of **Ikezoye and Lampkin** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a related content within similar a category of time which provides a data package consisting of multiple information related to the source.

As per Claim 14, Claim 13 is incorporated and further Ikezoye and Lampkin does not disclose:

- **wherein the time correlation is obtained by an alignment of a dialogue in the screenplay to the spoken text in the film and thereby providing a timestamped transcript of the film.**

However **Witteman** discloses the above limitation as (FIG. 3) which discloses the linking the extracted text and related searches bases on time recognized speech.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Witteman** into the teaching of **Ikezoye and Lampkin** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a related content within similar a category of time which provides a data package consisting of multiple information related to the source.

As per Claim 15, Claim 14 is incorporated and further Ikezoye and Lampkin does not disclose:

- **wherein a speaker identification in the film is obtained from the time stamped transcript.**

However **Wittman** discloses the above limitation as (col. 4 lines 42 - 43) "process 400 then determines a start of the audio block, indexes the audio block and sends the audio block to an information store" where determining the start of the audio block is claimed time stamp.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Wittman** into the teaching of **Ikezoye and Lampkin** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a related content within similar a category of time which provides a data package consisting of multiple information related to the source.

As per Claim 16, Claim 1 is incorporated and further Ikezoye and Lampkin does not disclose:

- **wherein the screenplay is compared with the spoken text in the film by means of a self-similarity matrix.**

However **Wittman** discloses the above limitation as (FIG. 3) which discloses the linking the extracted text and related searches of the audio based on time and recognized speech.

Therefore it would have been obvious to one of the ordinary skill in the art at the time of the invention made to incorporate the teaching of **Wittman** into the teaching of **Ikezoye and Lampkin** because one of the ordinary skill in the art would have been motivated to use such a modification for the purpose of providing a related content within similar a category of time which provides a data package consisting of multiple information related to the source.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS TRUONG whose telephone number is (571)270-3157. The examiner can normally be reached on MON - FRI: 7:30 - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mahmoudi Tony can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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2169

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